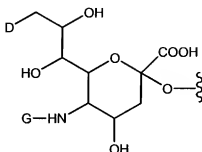


**Listing of Claims:**

1. (Currently amended) A follicle stimulating hormone peptide conjugate comprising at least one the moiety having the formula:



wherein

D is a member selected from -OH and R<sup>1</sup>-L-NH-;

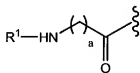
G is a member selected from R<sup>1</sup>-L- and -C(O)(C<sub>1</sub>-C<sub>6</sub>)alkyl;

R<sup>1</sup> is a moiety comprising a member selected a moiety comprising a straight-chain or branched poly(ethylene glycol) residue; and

L is a linker which is a member selected from a bond, substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl,

such that when D is OH, G is R<sup>1</sup>-L-, and when G is -C(O)(C<sub>1</sub>-C<sub>6</sub>)alkyl, D is R<sup>1</sup>-L-NH-.

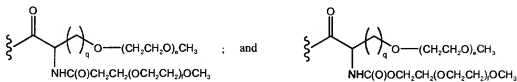
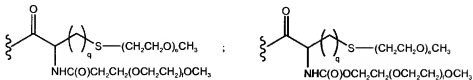
2. (Currently amended) The peptide conjugate according to claim 1, wherein R<sup>1</sup>-L-L-R<sup>1</sup> has the formula:



wherein

a is an integer from 0 to 20.

3. (Currently amended) The peptide conjugate according to claim 1, wherein R<sup>1</sup> has a structure that is a member selected from:

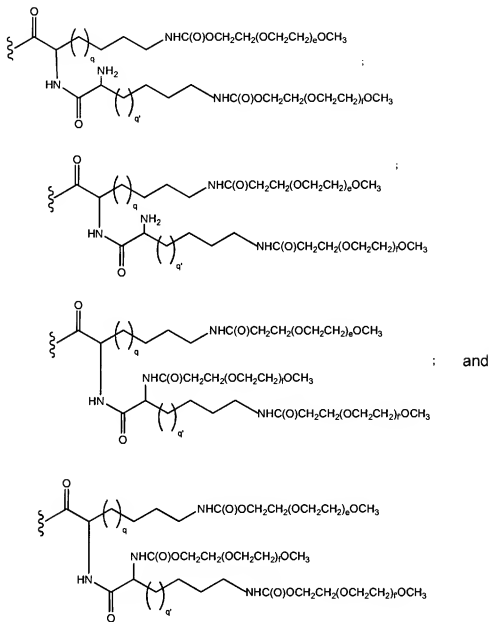


wherein

e and f are integers independently selected from 1 to 2500; and

q is an integer from 0 to 20.

4. (Currently amended) The peptide conjugate according to claim 1, wherein R<sup>1</sup> has a structure that is a member selected from:

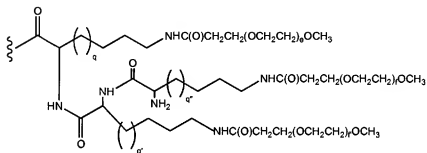
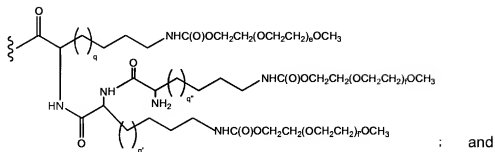


wherein

e, f and f' are integers independently selected from 1 to 2500; and

q and q' are integers independently selected from 1 to 20.

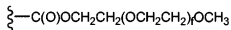
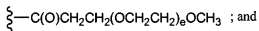
5. (Currently amended) The peptide conjugate according to claim 1, wherein R<sup>1</sup> has a structure that is a member selected from:



wherein

e, f and f' are integers independently selected from 1 to 2500; and  
 q, q' and q'' are integers independently selected from 1 to 20.

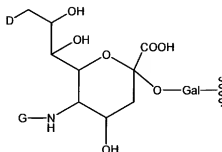
6. (Currently amended) The peptide conjugate according to claim 1, wherein R<sup>1</sup> has a structure that is a member selected from:



wherein

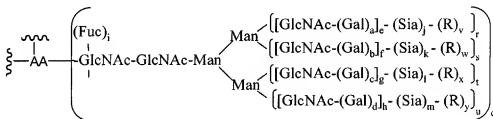
e and f are integers independently selected from 1 to 2500.

7. (Currently amended) The FSH peptide conjugate according to claim 1, wherein said moiety has the formula:



8. (Currently amended) The peptide conjugate according to claim 1, wherein said peptide has an amino acid sequence selected from SEQ[.] ID[.] NO:1 and SEQ ID NO:2.

9. (Currently amended) The **FSH** peptide conjugate according to claim 1, wherein said moiety has the formula:



wherein

a, b, c, d, i, r, s, t, and u are integers independently selected from 0 and 1;

q is 1;

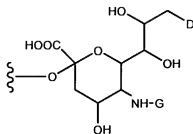
e, f, g, and h are members independently selected from the integers from 0 to 6;

j, k, l, and m are members independently selected from the integers from 0 and 100;

v, w, x, and y are independently selected from 0 and 1, and least one of v, w, x and y is 1;

AA is an amino acid residue of said FSH peptide;

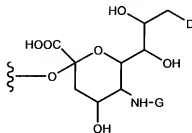
Sia-(R) has the formula:



wherein

- D is a member selected from -OH and  $R^1-L-HN-$ ;  
G is a member selected from  $R^1-L-$  and  $-C(O)(C_1-C_6)alkyl-$ ;  
 $R^1-$  is a moiety comprising a member selected a straight chain or branched poly(ethylene glycol) residue; and  
L is a linker which is a member selected from a bond, substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl;  
such that when D is OH, G is  $R^1-L-$ , and when G is  $-C(O)(C_1-C_6)alkyl-$ , D is  $R^1-L-NH-$ .

10. (Currently amended) The peptide conjugate according to claim 9, wherein said amino acid residue is an asparagine residue.
11. (Currently amended) The peptide conjugate according to claim 10, wherein said amino acid residue is an asparagine residue ~~which is a member selected from N7 of SEQ ID NO:2, N24 of SEQ ID NO:2, N52 of SEQ ID NO:1, and N78 of SEQ ID NO:1, and combinations thereof.~~
12. (Currently amended) The peptide conjugate according to claim 1, wherein said peptide is a bioactive follicle stimulating hormone peptide.
13. (Original) A method of making a FSH peptide conjugate comprising the moiety:



wherein

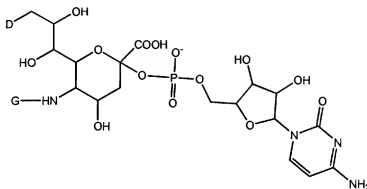
- D is a member selected from -OH and  $R^1-L-HN-$ ;  
G is a member selected from  $R^1-L-$  and  $-C(O)(C_1-C_6)alkyl-$ ;

$R^1$  is a moiety comprising a member selected a straight-chain or branched poly(ethylene glycol) residue; and

L is a linker which is a member selected from a bond, substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl,

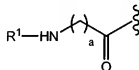
such that when D is OH, G is  $R^1-L-$ , and when G is  $-C(O)(C_1-C_6)alkyl$ , D is  $R^1-L-NH-$ ,  
said method comprising:

(a) contacting a substrate FSH peptide with a PEG-sialic acid donor moiety having the formula:



and an enzyme that transfers said PEG-sialic acid onto an amino acid or glycosyl residue of said FSH peptide, under conditions appropriate for the transfer.

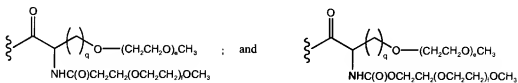
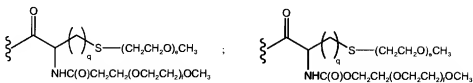
14. (Currently amended) The method according to claim 13, wherein  $R^1-L-R^2$  has the formula:



wherein

a is an integer from 0 to 20.

15. (Original) The method according to claim 13, wherein  $R^1$  has a structure that is a member selected from:



3

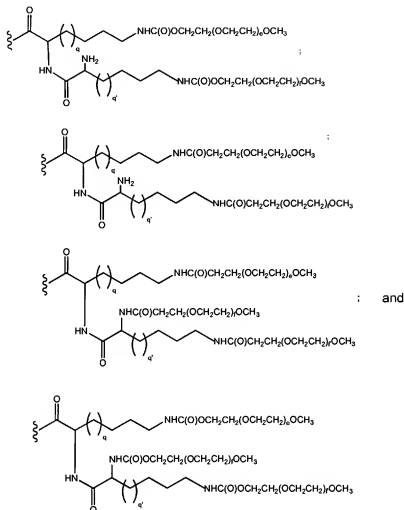
4 wherein

5 e and f are integers independently selected from 1 to 2500; and

6 q is an integer from 0 to 20.

1 **16.** (Original) The method according to claim 13, wherein R<sup>1</sup> has a structure that is a member  
 2 selected from:



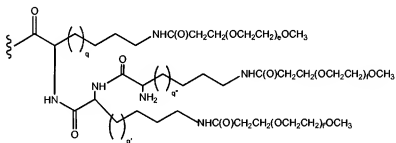
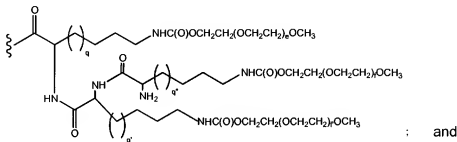


wherein

e, f and f' are integers independently selected from 1 to 2500; and  
 q and q' are integers independently selected from 1 to 20.

Response to Restriction Requirement dated August 17, 2009

17. (Original) The method according to claim 13, wherein  $R^1$  has a structure that is a member selected from:

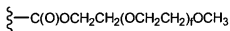
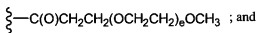


wherein

$e$ ,  $f$  and  $f'$  are integers independently selected from 1 to 2500; and

$q$ ,  $q'$  and  $q''$  are integers independently selected from 1 to 20.

18. (Original) The method according to claim 13, wherein  $R^1$  has a structure that is a member selected from:



wherein

$e$  and  $f$  are integers independently selected from 1 to 2500.

19. (Original) The method of claim 13, further comprising, prior to step (a):

(b) expressing said substrate follicle stimulating hormone peptide in a suitable host.

20. (Original) The method of claim 13, wherein said host is selected from an insect cell and a mammalian cell.

- 1   **21.**    (Currently amended) A method of stimulating ovarian follicles in a mammal, said method  
2    comprising administering to said mammal ~~the~~ a peptide conjugate according to claim 1.
- 1   **22.**    (Currently amended) A method of treating a condition in a subject in need thereof, said condition  
2    characterized by reproductive infertility said method comprising the step of administering to the subject  
3    an amount of ~~the~~ a peptide conjugate according to claim 1, effective to ameliorate said condition in said  
4    subject.
- 1   **23.**    (Currently amended) A pharmaceutical formulation comprising the ~~follicle stimulating hormone~~  
2    peptide conjugate according to claim 1, and a pharmaceutically acceptable carrier.